UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,888	09/30/2003	Jeremy Bem	Google-57 (GP-151-00-US)	9229

26479 7590 06/13/2008

STRAUB & POKOTYLO
788 Shrewsbury Avenue
TINTON FALLS, NJ 07724

EXAMINER	
NGUYEN, TRI V	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
06/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,888	BEM, JEREMY	
	Examiner	Art Unit	
	TRI V. NGUYEN	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-10,12-14,19-22,24-26,32-35,37-39,53,54,56-58,63,64,66-68,74,75,77-79 and 85* is/are rejected.

7)☒ Claim(s) *15-17, 27-29, 40-42, 59-61, 69-71, 80-82* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 7-10,12-17,19-22,24-29,32-35,37-42,53,54,56-61,63,64,66-71,74,75,77-81 and 85.

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/20/08 has been entered.

Response to Amendment

2. In the amendment filed on 03/16/07, claims 7, 19, 32, 53, 63 and 74 have been amended and claims 1-6, 11, 18, 23, 30, 31, 36, 43-52, 55, 62, 65, 72, 73, 76, 83, 84 and 86 have been cancelled. The currently pending claims considered below are Claims 7-10, 12-17, 19-22, 24-29, 32-35, 37-42, 53, 54, 56-61, 63, 64, 66-71, 74, 75, 77-82 and 85.

3. In view of the amendment and applicant's remarks, the objections and rejections under 112(2) are withdrawn.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 7-10, 12-17, 19-22, 24-29, 32-35, 37-42 and 85 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

It is noted that based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance is that a § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or

materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101 and should be rejected as being directed to nonstatutory subject matter. See *Diamond v. Diehr,* 450 U.S. 175, 184 (1981); *Parker* v. *Flook,* 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson,* 409 U.S. *63,* 70 (1972); *Cochrane* v. *Deener,* 94 U.S. 780,787-88 (1876).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 7-10,12-17,19-22,24-29,32-35,37-42,53,54,56-61,63,64,66-71,74,75,77-81 and 85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 7, 19, 32, 53, 63 and 74 recite the limitation of "automatically" generating the request; however, a review of the specification does not specifically teach "automatically" generating the request as claimed.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 7-10, 12, 13, 19-22, 24, 25, 32-35, 37, 38, 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorosario et al. in view of Weissman et al., McElfresh et al. and Oh (US 2003/0182274).

Claims 7, 19 and 32: Dorosario et al. discloses a method comprising:

a) accepting search query information including a word (page 3, parag. 27);

b) determining one or more words related to the word included in the accepted search query (page 4, parag. 41 and page 5, parag. 42-43);

c) generating an item request including

i) the word included in the accepted search query (page 4, parag. 41 and page 5, parag. 42-43), and

ii) the one or more words determined to be related to the word included in the accepted search query (page 4, parag. 36, 41 and page 5, parag. 42-43);

d) retrieving items using the item request (page 8, parag. 66);

e) determining a score for each of the retrieved items (page 3, parag. 28);

f) adjusting the scores of any items retrieved on the basis of the one or more words determined to be related to the word included in the accepted search query relative to any items retrieved on the basis of the word included in the accepted search query (page 5, parag. 44);

g) serving at least some of the items to a client device for rendering to a user, wherein the serving is controlled, at least in part, using the adjusted scores,

wherein the retrieved items are advertisements but does not explicitly disclose wherein the act of determining a score for each of the retrieved items uses at least one of ad performance information and ad price information.

Dorosario et al. disclose a method of delivering advertisement based on a search query however, Dorosario et al. does not explicitly disclose applicants' search architecture, determination a score for each of the retrieved items that uses at least one of ad performance information and ad price information and automatically generating the request. In an analogous art, Weissman et al. disclose appellants search architecture based on words relationships and

score adjustments (col 7, lines 41-49; col 8, lines 8-22; col 9, lines 42-67; col 10, lines 42-54; col 13, lines 35-65 and Figure 3), McElfresh et al. teach that it is known to track the performance of the ads displayed and further use the performance data as factors in a statistical model in targeted advertising (col 5, lines 66 to col 6, line 14; col 8, lines 15-28 and col 11, lines 34 to 67) and Oh teach that the feature of automatic tasking in a search engine with advertising functionality (abstract and §51). It is noted that both Dorosario et al. and Weissman et al. teach a variation of the automatic tasking (Dorsario: § 44 and Weissman: col 5, lines 52-55 and col 7, lines 50-65). Since Dorosario et al. aim to increase the matching between keywords and advertisements via various parameters, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., with the particular search architecture, score adjustment feature based on ad performance information and automatic tasking as taught by Weissman et al., McElfresh et al. and Oh respectively. One would have been motivated to modify the method to increase the efficiency in the targeting of the advertisement by incorporating an adjustment based on the prior interaction of the users with the ads and to automatically perform tasks to expedite known process parameters. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh with the adjusting being solely based on the one or more words determined to be related to the word included in the accepted search query relative to any items retrieved on the basis of the word included in the accepted search query since it was known in the art that different schemes of advertising utilizing an assortment of features are used to provide a specific scope in the targeted audience sought by the advertiser such as the criteria included in broadening and/or restricting the reach of the targeted advertisement in view

of the search results. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of a skilled artisan.

Claims 8, 20 and 33: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of 7, 19 and 32 but do not explicitly disclose wherein the act of adjusting the scores includes decreasing the scores. Weissman et al. teach ranking the results and ordering based on relevance (col 7, lines 45-49). The instant limitation of decreasing the score is seen as a design decision which is given little, if any, patentable weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh to include a step of decreasing the score. One would have been motivated to allow for the modification of the method to include a way to reflect the score being adjusted (via a numerical increase or decrease of the updated score with reference to the “un-updated” score).

Claims 9, 21 and 34: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 7, 19 and 32 but do not explicitly disclose wherein the act of adjusting the scores includes multiplying each of the scores by a multiplier that is less than one. Weissman et al. teach ranking the results and ordering based on relevance (col 7, lines 45-49). The instant limitation of adjusting the scores includes multiplying each of the scores by a multiplier that is less than one is seen as a design decision which is given little, if any, patentable weight. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh to include a step of adjusting the scores includes multiplying each of the scores by a

multiplier that is less than one. One would have been motivated to allow for the modification of the method to include a way to reflect the score being adjusted.

Claims 10, 22 and 35: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 9, 21 and 34 but do not explicitly disclose further comprising:

h) updating the multiplier using performance information. Weissman disclose the feature of updating the score. Dorosario et al. disclose a performance feature in a search engine and weighing factors (page 5, parag. 44 and page 7, parag. 63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al., McElfresh et al. and Oh, with the performance feature. One would have been motivated to modify the method to expand on the semantic space criteria with an additional dimension thus increasing the number of pertinent information to optimize the effectiveness of advertisement matching.

Claims 12, 24 and 37 Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 10, 22 and 35 disclose wherein the performance information includes ad selection information (Dorosario et al.: page 4, parag. 35; page 5, parag. 44 and page 7, parag. 63).

Claims 13, 25 and 38: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of 10, 22 and 35 disclose wherein the performance information includes ad conversion information (Dorosario et al.: page 4, parag. 35).

Claims 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85 disclose the apparatus of the method Claims 7-10, 12, 13, 19-22, 24, 25, 32-35, 37, 38 respectively; therefore, the prior arts of Dorosario et al., Weissman et al., McElfresh et al. and Oh as set forth above are relied upon to reject Claims 53, 54, 56, 57, 63, 64, 66, 67, 74, 75, 77, 78 and 85.

10. Claims 14, 26, 39, 58, 68 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable Dorosario et al., Weissman et al., McElfresh et al. and Oh as applied to the claims above, and further in view of Hosea et al.

Claim 14, 26 and 39: Dorosario et al., Weissman et al., McElfresh et al. and Oh disclose the method of claims 10, 22 and 35 respectively but do not explicitly disclose wherein the act of updating the multiplier is performed using a function that causes the updated multiplier to converge to observed user behavior relevant to performance divided by predicted user behavior relevant to performance. In an analogous art, Hosea et al. teaches that it is known to use an adaptive profiling algorithm starting with an educated guess (the zip code of the user) and evolving as more information is available about the user (page 4, parag. 43 and 44). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Dorosario et al., Weissman et al. and McElfresh et al., with the adaptive profiling feature as taught by Hosea et al. One would have been motivated to modify the method with an adaptive profiling algorithm for providing a more efficient targeted advertising strategy by incorporating pertinent information about the user thus increasing the effectiveness of ad matching.

Claims 58, 68 and 79 describe the apparatus of the method Claims 14, 26and 39 respectively; therefore, the prior arts of : Dorosario et al., Weissman et al., McElfresh et al., Oh and Hosea et al. as set forth above are relied upon to reject Claims 58, 68 and 79.

Allowable Subject Matter

11. Claims 15-17, 27-29, 40-42, 59-61, 69-71 and 80-82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Dorosario et al., Weissman et al., McElfresh et al., Oh and Hosea et al. describe the claimed invention; however, none of the cited references teach the specific formula wherein the act of updating the multiplier is performed using the formula:

updated_multiplier = (N x initial multiplier + observed_user _behavior) / (N + naively_predicted _user _behavior)

wherein N is a number;

and the various parameters of the formula.

Response to Arguments

12. Applicant's arguments, filed on 3/20/08 with respect to claims 15-17, 27-29, 40-42, 59-61, 69-71 and 80-82 have been fully considered and are persuasive. The rejection under 103(a) of 15-17, 27-29, 40-42, 59-61, 69-71 and 80-82 has been withdrawn.

13. Applicant's arguments filed 3/20/08 have been fully considered but they are not persuasive.

a. Regarding applicant's argument that the cited references do not teach the automatic feature on page 19 et seq., the examiner notes that the new ground of rejection for the amended claims.

b. Regarding applicant's argument that the cited references do not teach the features of a score determination and adjustment on page 23 et seq., the examiner notes the Dorosario reference teach advertisement matching in a search engine environment and aim to achieve the most efficient targeted advertisement via various parameters such semantic matching and profiling. The Weissman reference is relied upon to show that score generation and adjustment are well known features in semantic mapping and matching. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the score matching feature as in the improvement discussed in Weissman in the method of Dorosario.

c. Regarding applicant's argument that the combination is not obvious on page 26 et seq., it is noted that even if the references in the instant case do not expressly suggest the specific combination claimed by the inventor, an assertion which the examiner contests, the courts have stated "to support [a] conclusion that claimed combination is directed to obvious subject matter, references must either expressly or impliedly suggest claimed combination or examiner must present convincing line of reasoning as to why artisan would have found claimed invention to have been obvious in light of references' teachings." Ex parte Clapp, 227 USPQ 972, 973 (BdPatApp&Int 1985). Furthermore, The Courts have already established that "[h]aving established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness 'from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a

particular reference.'" In re Bozek, 163 USPQ 545, 549 (CCPA 1969). In the instant case, it is noted that the Dorosario reference teach advertisement matching in a search engine environment and aim to achieve the most efficient targeted advertisement via various parameters such semantic matching and user's profiling. The Weissman reference is relied upon to show that score generation and adjustment are well known features for optimizing semantic mapping and matching. It would be well within the purview of a skilled artisan to implement the features of score generation and adjustment within the environment of Dorosario's targeted advertisement for search engines to enhance the delivery of more efficient and customized advertisement. Furthermore, the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention since Weisman's features are used to optimize the matching scheme of Dorosario.

d. Regarding applicant's argument that the Hosea et al. reference does not teach the update-multiplier formula. Regarding claims 14, 26, 39, 58, 68 and 79, it is noted that Hosea et al. teach an example of an adaptive profiling algorithm that takes into consideration the behavior of the user over time starting from a pre-determined data; however, the Examiner concurs that the Hosea et al. does not disclose the specific formula and notes that the claims directed to the specific formula are now allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119 and Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. V. N./
Examiner, Art Unit 1796
June 13, 2008

/Eric W. Stamber/
Supervisory Patent Examiner, Art Unit 3622